

On page 14, line 10, following the word "are", please delete "thos" and insert therefor

--those--.

On page 19, line 24, following the phrase "H-TTTCCTCTC-LysNH<sub>2</sub>," please insert

--(SEQ ID NO: 3)--.

On page 21, line 14, following the phrase "PNA5," please insert --SEQ ID NO: 9--.

On page 21, line 15, following the phrase "PNA6," please insert --SEQ ID NO: 10--.

**In the claims:**

Please cancel claims 1-8 without prejudice to their presentation in a continuing patent application. Also, please cancel claims 11, 20 and 21, replace them with claims 23-24, respectively, and rewrite claims 12-14 as indicated below:

In the claim 12, line 1, please delete "claim 11" and insert therefor --claim 22--.

~~13.~~ <sup>3</sup> (amended) The nucleic acid mimic according to claim [11] <sup>25</sup> ~~22~~ <sup>21</sup> wherein

said sterically bulky substituent has 3 or more non-hydrogen atoms and is -R', -OR', -SR',

-N(R')<sub>2</sub>, -C(R')<sub>3</sub>, -C(=X)(R'), -C(=X)(-Y-R') or S(=O)<sub>1-2</sub>(-Y-R') wherein:

X is O, S or NH;

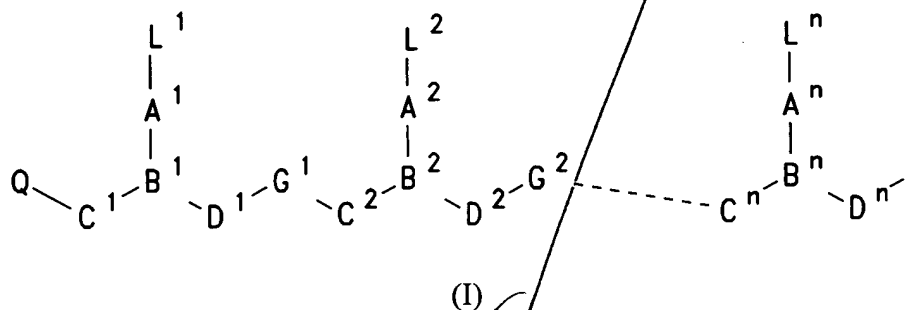
Y is O, S or NH; and

R' [comprises at least 3 atoms and] is H, C<sub>1</sub>-C<sub>50</sub>-alkyl, C<sub>2</sub>-C<sub>50</sub>-alkenyl, C<sub>2</sub>-C<sub>50</sub>-alkynyl, C<sub>7</sub>-C<sub>50</sub>-alkyl-aryl, C<sub>6</sub>-C<sub>50</sub>-aryl, C<sub>10</sub>-C<sub>50</sub>-naphthyl, C<sub>12</sub>-C<sub>50</sub>-biphenyl, C<sub>7</sub>-C<sub>50</sub>-aryl-alkyl,

pyridyl, imidazolyl, pyrimidinyl, pyridazinyl, quinolyl, acridinyl, pyrrolyl, furanyl, thienyl, isoxazolyl, oxazolyl, thiazolyl and biotinyl, wherein R' can be substituted one or more times by -NO, -NO<sub>2</sub>, -SO<sub>3</sub><sup>-</sup>, -CN, -OH, -NH<sub>2</sub>, -SH, -PO<sub>3</sub><sup>2-</sup>, -COOH, -F, -Cl, -Br and -I.

In the claim 14, line 1, please delete "claim 11" and insert therefor —claim 22--.

—22. The nucleic acid mimic according to claim 1 having formula (I):



wherein:

n is at least 2,

each of L<sup>1</sup>-L<sup>n</sup> is independently selected from the group consisting of hydrogen, hydroxy, (C<sub>1</sub>-C<sub>4</sub>)alkanoyl, naturally occurring nucleobases, non-naturally occurring nucleobases, aromatic moieties, DNA intercalators, nucleobase-binding groups, heterocyclic moieties, and reporter ligands, at least one of L<sup>1</sup>-L<sup>n</sup> being said base substituted with at least one sterically bulky substituent;

each of C<sup>1</sup>-C<sup>n</sup> is (CR<sup>6</sup>R<sup>7</sup>), where R<sup>6</sup> is hydrogen and R<sup>7</sup> is selected from the group consisting of the side chains of naturally occurring alpha amino acids, or R<sup>6</sup> and R<sup>7</sup> are



wherein:

each L is independently selected from the group consisting of hydrogen, phenyl, heterocyclic base moieties, including those substituted with a sterically bulky group or groups, naturally occurring nucleobases, and non-naturally occurring nucleobases, at least one L being said base substituted with at least one sterically bulky substituent;

*C3 cont*  
R<sup>3</sup> and R<sup>4</sup> independently are hydrogen, a conjugate, (C<sub>1</sub>-C<sub>4</sub>)alkyl, hydroxy- or alkoxy- or alkylthio-substituted (C<sub>1</sub>-C<sub>4</sub>)alkyl, hydroxy, alkoxy, alkylthio or amino;

each R<sup>7</sup> is independently selected from the group consisting of hydrogen and the side chains of naturally occurring alpha amino acids;

n is an integer from 1 to 60;

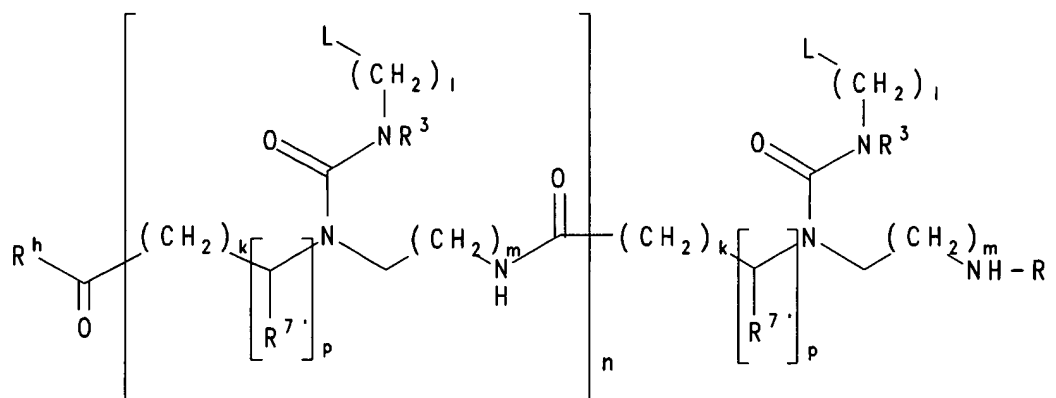
each of k, l, and m is independently zero or an integer from 1 to 5;

p is zero or 1;

R<sup>h</sup> is OH, NH<sub>2</sub> or -NHLysNH<sub>2</sub>; and

R<sup>i</sup> is H or COCH<sub>3</sub>.

*H*  
~~24.~~<sup>11</sup> The nucleic acid mimic according to claim ~~22~~<sup>201  
25</sup> having formula (IIIb):



(IIIb)

wherein:

each L is independently selected from the group consisting of hydrogen, phenyl, heterocyclic base moieties, including those substituted with a sterically bulky group or groups, naturally occurring nucleobases, and non-naturally occurring nucleobases, at least one L being said base substituted with at least one sterically bulky substituent;

R<sup>3</sup> and R<sup>4</sup> independently are hydrogen, a conjugate, (C<sub>1</sub>-C<sub>4</sub>)alkyl, hydroxy- or alkoxy- or alkylthio-substituted (C<sub>1</sub>-C<sub>4</sub>)alkyl, hydroxy, alkoxy, alkylthio or amino;

each R<sup>7</sup> is independently selected from the group consisting of hydrogen and the side chains of naturally occurring alpha amino acids;

n is an integer from 1 to 60;

each of k, l, and m is independently zero or an integer from 1 to 5;

p is zero or 1;

R<sup>h</sup> is OH, NH<sub>2</sub> or -NHLysNH<sub>2</sub>; and

R<sup>i</sup> is H or COCH<sub>3</sub>.--